Integrated Device Technology, Inc.
6024 Silver Creek Valley Road, San Jose, CA - 95138

PRODUCT/PROCESS CHANGE NOTICE (PCN)

PCN #: **A1901-01** Date: January 31, 2019

Product Affected: 71256SA35SOG1
71256SA35SOG18

Date Effective: April 30, 2019

MEANS OF DISTINGUISHING CHANGED DEVICES:

- ☐ Product Mark
- ■ Back Mark — Lot # will have a "MM" prefix
- ☐ Date Code
- ☐ Other

Contact: IDT PCN DESK

E-mail: pcndesk@idt.com

Attachment: ■ Yes ☐ No

Samples: Please contact your local sales representative for sample request & availability.

DESCRIPTION AND PURPOSE OF CHANGE:

- ☐ Die Technology
- ☐ Wafer Fabrication Process
- ☐ Assembly Process
- ☐ Equipment
- ☐ Material
- ☐ Testing
- ■ Manufacturing Site
- ☐ Data Sheet
- ☐ Other

This notification is to advise our customers that IDT is transferring product currently assembled at Amkor Philippines (ATP) to Carsem, Malaysia as a result of ATP discontinue the assembly process on the automotive products.

There is no change to the moisture performance rating.

Please refer to Attachment 1 for the qualification summary and material set details.

RELIABILITY/QUALIFICATION SUMMARY:

Qualification has been successfully completed. There is no change in MSL rating.

CUSTOMER ACKNOWLEDGMENT OF RECEIPT:

IDT records indicate that you require written notification of this change. Please use the acknowledgement below or E-Mail to grant approval or request additional information. If IDT does not receive acknowledgement within 30 days of this notice it will be assumed that this change is acceptable.

IDT reserves the right to ship either version manufactured after the process change effective date until the inventory on the earlier version has been depleted.

Customer: ________________________ ☐ ***Approval for shipments prior to effective date.***

Name/Date: ________________________ E-Mail Address: ________________________

Title: ________________________ Phone# /Fax# : ________________________

CUSTOMER COMMENTS:

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IDT ACKNOWLEDGMENT OF RECEIPT:

RECD. BY: ________________________ DATE ____________________

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PRODUCT/PROCESS CHANGE NOTICE (PCN)

ATTACHMENT 1 - PCN # : A1901-01

PCN Type: Change Assembly Location

Data Sheet Change: N/A

Detail Of Change:

This notification is to advise our customers that IDT is transferring product currently assembled at Amkor Philippines (ATP) to Carsem, Malaysia as a result of ATP discontinue the assembly process on the automotive products.

The material set details of the current and new Assembly locations is shown in the tables below. The die attach, mold compound and bonding wire used at the new assembly site are qualified IDT materials. There is no change from the existing qualified lead frame material and lead finish for this alternate assembly site.

There is no change to the moisture performance rating.

Qualified Material Sets, by Assembly Subcontractor

	Existing	**New**
Material Set / Assembly	ATP - Amkor, Philippines	CRSM - Carsem Malaysia
Die Attach	Ablestik 8290	Ablestik 8290
Bonding Wire	1.3 mils Gold Wire	1.3 mils Gold Wire
Mold Compound	G600	G700HA
Lead Finish	100% Sn	100% Sn

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Package Qualification Test Report
SOIC

Packages Covered SOIC 28
Assembly Location Carsem
Report Date January 24, 2019

Qual Vehicle Information

	Lot 1	Lot 2	Lot 3
Package Type	SOIC 28	SOIC 28	SOIC 28
Package Dimension	17.9 x 7.6 x 2.34mm	17.9 x 7.6 x 2.34 mm	17.9 x 7.6 x 2.34 mm
Lead Pitch	1.27mm	1.27mm	1.27mm
Lead Frame Material	C194	C194	C194
Die Attach Material	Ablestik 8290	Ablestik 8290	Ablestik 8290
Wire Bond Material	1.3mil Au	1.3mil Au	1.3mil Au
Mold Compound Material	Sumitomo G700HA	Sumitomo G700HA	Sumitomo G700HA
Plating Finish	100% Sn, Matte	100% Sn, Matte	100% Sn, Matte

Qualification Test and Results (Reference AEC-Q100)

		Sample Size/Reject		
		SOIC 28		
Stress Tests	**Reference Spec / Conditions**	**Lot 1**	**Lot 2**	**lot 3**
High Temperature Operating Life (HTOL)	JESD22-A108, JESD85 / Vcc=6.0V, Ta=125°C, 1000 hours	77/0	77/0	77/0
Early Life Failure Rate (ELFR)	JESD22-A108 / JESD74 / Vcc=6.0V, Ta=125°C, 48 hours	800/0	800/0	800/0
High Temperature Storage Test (HTSL)	JESD22-A103 / 150 °C, 1000 hours	45/0	-	-
Temperature Humidity Bias* (HAST)	JESD22-A110 / 130 °C, 85% RH, Vccmax, 96 hours	77/0	77/0	77/0
Temperature Cycling* (TC)	JESD22-A104 / . 55 °C to +125 °C, 1000 cycles	77/0	77/0	77/0
Moisture Sensitivity Level, MSL	IPC/JEDEC J-STD-20, MSL 3, 260 °C	25/0	25/0	-
Wire Bond Pull (WBP)	MIL883 M2011 / Pre-stress	5/0	5/0	5/0
	Post PC + 1000cyc TC	5/0	5/0	5/0
Wire Bond Shear (WBS)	AEC Q100-001	5/0	5/0	5/0
Solderbility test (SD)	MIL-STD-883 (Method 2003), J-STD-002D, solder bath SAC 245°C	15/0	-	-
Physical Dimension (PD)	JESD22-B100 (Per applicable IDT Package Outline Drawing)	10/0	10/0	10/0

* Preconditioning sequence according to JESD22-A113 prior to stress test.